

Remarks

Claims 12-21 are pending. Claim 12 has been amended to remove the proviso and to incorporate the subject matter of original claims 3, 5 and 9. New claims 17-21 are based on original claims 6, 7, 8, 9 and 10. No new matter has been added.

The Examiner objects to the instant RCE for allegedly introducing new matter. The phrase has been deleted.

The Examiner objects to the claims 12-16 under 35 U.S.C. 112(2) for being indefinite. The Examiner objects to the phrase "to water, the composition being diluted". The phrase has to be read in context of the entire claim, which defines a process comprising adding an aqueous soil treatment composition [definition in claim] to water. The addition of the aqueous soil treatment composition would, of course, thereby dilute said composition. Applicants submit that the foregoing is a sufficient explanation of the claim structure.

The Examiner appears to maintain her obviousness rejection of the pending claims in view of published European Patent Application No. 586,911 ("EP '911"). Applicants respectfully traverse this rejection.

EP '911 suggests combinations of an agricultural nutrient, such as urea-formaldehyde fertilizer, and a (co)polymer. EP '911 indicates that the polymer should preferably have a molecular weight from about 200,000 to 15 million. More importantly, the compositions taught in EP '911 gel in the presence of water. EP '911 emphasizes the gelling characteristics since the intent is the formation of a chemical grout for soil stabilization. There is no possibility of the compositions being diluted upon addition to water as recited in claim 12. Furthermore, the claims have been amended to provide that the composition consists essentially of the recited components. Such an amendment excludes a material that materially affects properties and performance of the composition. The essential attribute herein is the aqueous solution. Therefore, the presence of a redox coupling agent that causes the gellation step in an aqueous system is excluded. For these reasons, Applicants submit that the teachings in EP '911 fail to

render the claimed process unpatentable. Applicants request that the Examiner reconsider and withdraw her obviousness rejection of the pending claims in view of EP '911.

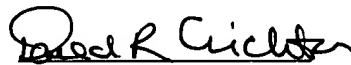
Applicants also enclose a translation of JP Sho 51-124578, which was prepared as part of prosecution in a related application in Europe. The reference teaches a composition containing fertilizer and a copolymer of acrylamide and potassium acrylate. Most significantly, on page 2, paragraph 3 (of the English translation) it is explained that

"....from a practical point of view, it is preferred that the acrylamide unit content falls in the range of from 70 to 50 % by mole."

Claim 12 herein calls for the use of compositions containing from 60 to 80 wt.% anionic monomer (which means at the most 40 wt.% nonionic monomer). In the reference, the molar and weight percents are nearly identical.

Applicants submit that the instant application is now in condition for allowance. In the event that minor amendments will further prosecution, Applicants request that the Examiner contact the undersigned representative.

Respectfully submitted,



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Amended Claims with underlining and bracketing

12. (~~4X~~ three times amended) A soil treatment process comprising adding an aqueous soil treatment composition ~~comprising~~ consisting essentially of:

(a) an ionic water-soluble fertilizer in an amount of at least 10 weight percent, and

(b) a water-soluble anionic polymer with ~~has~~ intrinsic viscosity of from 9 to 12 dl/g at least 6 dl/g and is formed from water-soluble ~~monomer or monomer blend~~ comprising 60 to 80 wt.% anionic monomer and from 40 to 20 wt.% nonionic monomer, the composition having a viscosity of not more than 4,000 cps ~~of which at least 40 weight percent is anionic monomer which composition does not contain a redox couple comprising a water-soluble ferrous-reducing agent and an oxidizing agent~~, to water, the composition being thereby diluted, and irrigating an area of soil with the water.

13. (amended) A process according to claim 12 in which the soil is irrigated by furrow irrigation, drip irrigation, or spray irrigation.

14. A process according to claim 12 in which water is pumped through feed ducting and a mixing zone to a spray manifold supplying one or more spraying devices by which the water is sprayed onto a crop area and the aqueous soil treatment composition is metered into the water at or before the mixing zone.

15. (~~2X~~ amended) A method for the production of an aqueous soil treatment composition comprising providing an aqueous solution of at least 10 wt% ionic water soluble fertilizer (a) and mixing it with polymer (b), said polymer (b) being a water soluble anionic polymer which has an intrinsic viscosity of of from 9 to 12 dl/g and is formed from water-soluble monomer blend comprising 60 to 80 wt.% anionic monomer and from 40 to 20 wt.% nonionic monomer, the composition having a viscosity of not more than 4,000 cps ~~at least 6 dl/g and is formed from water-soluble monomer or monomer blend of which at least 40% is anionic monomer~~, in powder form.

16. A soil treatment process as claimed in claim 12, wherein the composition has, before dilution, a viscosity below 4000 cPs.

17. (new) A process according to claim 12 in which the polymer (b) is a copolymer of acrylamide with an alkali metal salt of acrylic acid.

18. (new) A process according to claim 12 in which the polymer (b) is present in an amount of from 2 to 5 wt.%.

19. (new) A process according to claim 12 in which the fertiliser (a) is present in an amount of from 20 to 60 wt.%.

20. (new) A process according to claim 12 in which the aqueous soil treatment composition has a viscosity of from 200 to 500 cps.

21. (new) A process according to claim 12 in which the aqueous soil treatment composition has a viscosity of not more than 1,000 cps.